



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
 United States Patent and Trademark Office
 Address: COMMISSIONER FOR PATENTS
 P.O. Box 1450
 Alexandria, Virginia 22313-1450
 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/619,921

07/15/2003

John Conan Doyle II

13544.0002.NPUS00

7148

23369

7590

06/15/2005

HOWREY LLP

C/O IP DOCKETING DEPARTMENT

2941 FAIRVIEW PARK DRIVE, SUITE 200

FALLS CHURCH, VA 22042-7195

EXAMINER

SMITH, KIMBERLY S

ART UNIT

PAPER NUMBER

3644

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/619,921

Applicant(s)

DOYLE, JOHN CONAN

Examiner

Kimberly S. Smith

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14, 16-28 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-28, 30-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

A

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-33 have been considered but are moot in view of the new ground(s) of rejection.
2. It is noted that in the Examiner's statement regarding allowable subject matter in the previous office action stated that improper hindsight would be necessary to incorporate a back lighting system with the device disclosed by Doyle, US Patent 6,591,221. In light of the present amendment and reconsideration of the references, the Examiner's considers the Scofield reference to provide proper motivation for the combination of the invention of Doyle with that disclosed by Scofield. It is noted that Scofield clearly states that "When combined with other physiological measurements such as height and length of the animal's body at given points, correlations between various animal body structures exist (column 1, lines 62-65)". As such, one in the art would look to any known means of measuring an animal's body structure to find correlations between the physiological measurements. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Upon reconsideration of the references, it is seen that the references themselves provide motivation for the combination as applied in the rejections as follows.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7-14, 16-24, 26-28 and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scofield, US Patent 5,483,441 in view of Doyle, WO99/67631 (for ease of reference, cited passages of the Doyle reference will be noted by the column and line numbers in the issued US Patent 6,591,221).

Scofield discloses a system for measuring a physical feature of an animal including a rump height and width, shoulder width and body length comprising a light source (72, 74) and an optical device (18, 20) opposing the light source and obtaining an image that includes a silhouette of the first portion of the animal; comprising a housing unit having at least one sidewall with the optical device mounted thereon (column 5, line 10); including at least one entry port formed at an end of the unit (as viewed in Figure 1A); comprising a device arranged adjacent the animal for positioning within the housing unit (i.e. 30); wherein the image includes at least one silhouette of at least a portion of the one leg, wherein the optical device is a photographic camera. However, Scofield does not disclose the use of a first ultrasound transducer arranged substantially vertical to the animal to determine an approximate height of a second portion of the animal. Doyle teaches within the same field of endeavor the use of an ultrasound transducer arranged substantially vertical to the animal for the purpose of determining an approximate height of a portion of an animal for measuring the height irrespective of the

Art Unit: 3644

relative vertical location of the pelvis relative to the length of the animal (i.e. as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of its relative position to the measuring device, column 5, lines 55-58). It would have been obvious to one having ordinary skill in the art to utilize the ultrasound transducer as disclosed by Doyle with the device as taught by Scofield in order to provide for an approximate height of the pelvic region irrespective of the length of the animal.

Regarding claim 9, it is inherent in the structure of a photographic camera that it comprises a lens for limiting the field of view.

Regarding claims 10 and 11, Scofield as modified discloses a processor (43) for determining a measurement of the physical feature from the image.

Regarding claim 12, Scofield as modified discloses the measurement includes the pelvic width of the animal.

Regarding claim 13, Scofield as modified discloses the processor comprising a computer (4) inherently having software and data storage.

Regarding claim 14, Scofield as modified discloses a processor. Regarding the recitation that the processor selects an area on the animal to apply a medical product or to determine subcutaneous fat with an ultrasound transducer, it has been held that the recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations.

Regarding claim 16, Scofield as modified discloses the second portion of the animal includes the pelvic region of the animal.

Regarding claims 17-19, Scofield discloses the measuring of the width of the animal including the pelvic region. However, Scofield does not disclose the use of a second ultrasound transducer to approximate the width of a third portion. Doyle teaches within the same field of endeavor the use of a pair of ultrasound generating means located on either side of the animal to measure the width of an animal irrespective of the location of the pelvis relative to the height of the animal (i.e. as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of it's relative position to the measuring device, column 5, lines 55-58). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ultrasound transducer as taught by Doyle with the device of Scofield in order to allow for measurement of the width of the animal irrespective of it's horizontal location to the measuring device.

Regarding claim 24, Scofield as modified discloses the means for determining the at least one physical dimension comprises determining an approximate distance between a pair of legs

Regarding claim 27, Scofield as modified discloses the means for determining the approximate skeletal trunk length (326).

Regarding claim 28, Scofield as modified discloses through the use of a processor a means for scaling the approximate distance of the skeletal trunk length.

Regarding claim 30, Scofield as modified discloses the means for determining the approximate height comprises means for measuring an approximate distance from an ultrasound transducer to the portion of the animal (Doyle, column 6, lines 51-52)

Regarding claim 31, Scofield as modified discloses a means for determining an approximate width of a second portion of the animal.

Art Unit: 3644

Regarding claim 32, Scofield as modified discloses the means for determining the approximate width comprises means for respectively measuring approximate distances from a pair of substantially opposing ultrasound transducers to the second portion of the animal.

Regarding claim 33, Scofield as modified discloses means for selecting an area on the animal to apply a medical product or to determine subcutaneous fat with an ultrasound transducer (i.e. processor 43).

5. Claims 1-3, 7-13, 20-23 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen et al, US Patent 4,939,574 (Petersen) in view of Doyle, WO99/67631.

Petersen discloses a system for measuring a physical feature of an animal comprising a light source (14) backlighting a first portion of the animal and an optical device (18) opposing the light source for obtaining an image that includes a silhouette; having a housing unit with at least one sidewall (1a) with a light source mounted thereon; comprising at least one entry port formed at the end of the unit; wherein the image includes at least one silhouette of at least one portion of one leg; wherein the optical device is a photographic camera. However, Petersen does not disclose the use of a first ultrasound transducer arranged substantially vertical to the animal to determine an approximate height of a second portion of the animal. Doyle teaches within the same field of endeavor the use of an ultrasound transducer arranged substantially vertical to the animal for the purpose of determining an approximate dimension of a portion of an animal for measuring the dimension irrespective of the relative location of the region to be measured relative to the length of the animal (i.e. as the ultrasound signals are conical, the signal is received in a circular manner on the animal providing for the pelvis to be measured irrespective of it's relative position to the measuring device, column 5, lines 55-58). It would have been

Art Unit: 3644

obvious to one having ordinary skill in the art to utilize the ultrasound transducer as disclosed by Doyle with the device as taught by Petersen in order to provide for an approximate height of a portion of the animal irrespective of the length of the animal.

Regarding claim 9, it is inherent in the structure of a photographic camera that it comprises a lens for limiting the field of view.

Regarding claims 10, Petersen as modified discloses a processor coupled to the optical device (20) for determining a measurement of the physical feature from the image.

Regarding claim 12, Petersen as modified discloses the measurement includes a width of the leg.

Regarding claim 13, Petersen as modified discloses the processor comprises a computer (20) inherently having software and data storage.

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen as modified as applied to claim 1 in view of Eom, US Patent 6,639,352.

Petersen as modified discloses the device as claimed including the light source comprising a plurality of monochromatic lights in an array. However, Petersen discloses the claimed invention except that a linear light source of fluorescent lamps are used instead of LEDs. Eom shows that LED and linear light sources are equivalent structures known in the art. Therefore, because these two backlighting light sources were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute a monochromatic array of fluorescent lamps for monochromatic LEDs.

Art Unit: 3644

7. Claims 14 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen as applied respectively to claims 10 and 20 above in view of Stouffer, US Patent 4,785,817.

Petersen as modified discloses the invention substantially as claimed with the exception of the processor selecting an area to determine subcutaneous fat with an ultrasound transducer. Stouffer teaches within the same field of endeavor the use of an ultrasound transducer to determine the subcutaneous fat within an animal to provide a more accurate grading of the animal. It would have been obvious to use the processor of Stouffer in conjunction with an ultrasound transducer for determining the fat thickness in a selected area to provide for more accurate grading of the animal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly S. Smith whose telephone number is 571-272-6909. The examiner can normally be reached on Monday thru Friday 10:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on 571-272-7045. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3644

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kss


MICHAEL J. CARONE
SUPERVISORY PATENT EXAMINER